Town of Shrewsbury Water Department

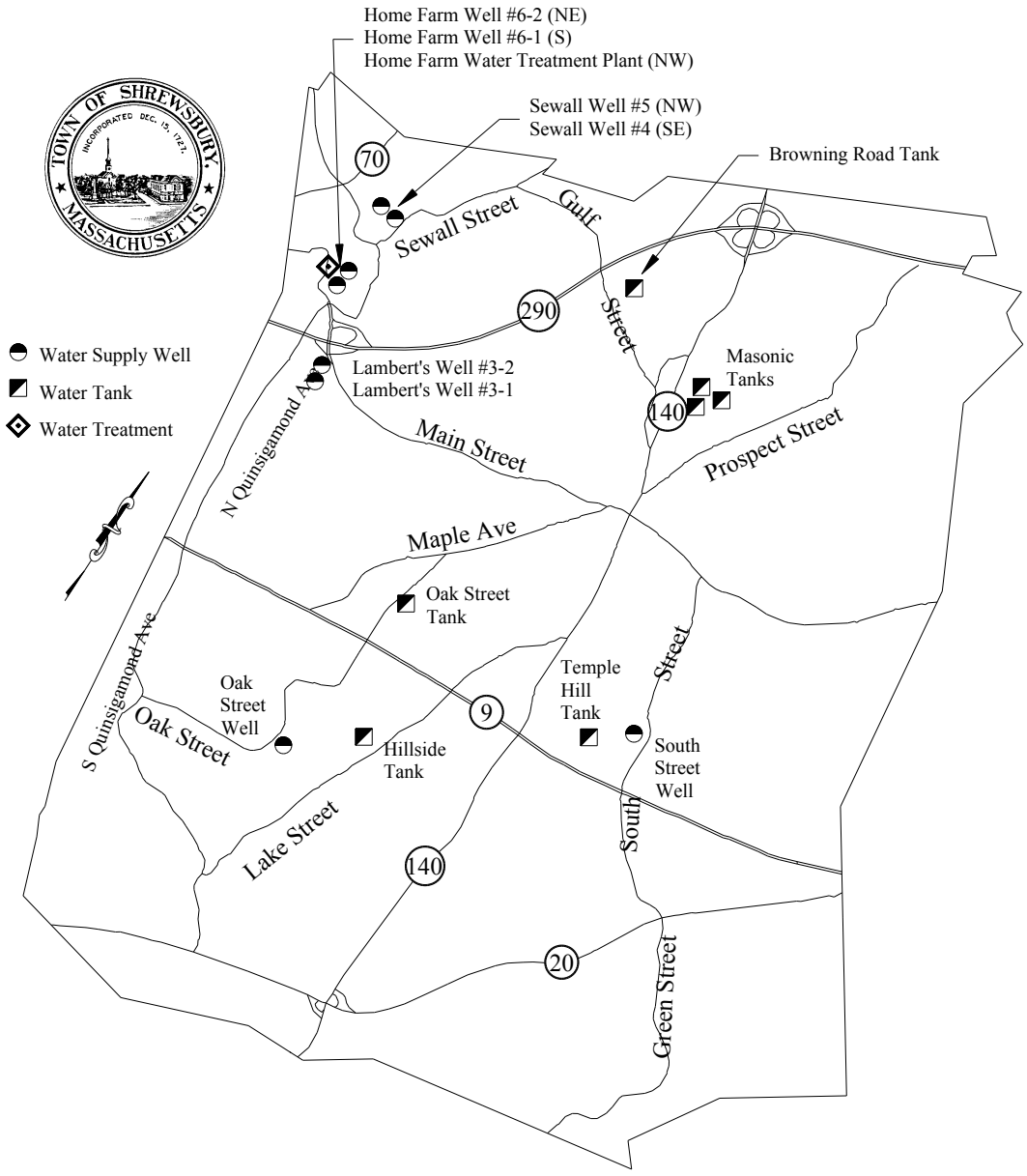
2005

Annual Drinking Water Quality Report

Public Water System Information
Shrewsbury Water Department PWS#2271000

The Shrewsbury Water Department is committed to providing our customers with high quality drinking water 24 hours a day, 365 days a year. To ensure we deliver this quality product, we continue to make significant investments in water treatment facilities, water quality monitoring, water sources, and the distribution system. Today's consumers are keenly aware of environmental and health issues, so they should have information regarding their water supply. Well-informed customers are our best allies in supporting improvements necessary to maintain the highest drinking water standards.

The Water Department is located on the second floor of the Richard D. Carney Municipal Building, at 100 Maple Ave. We hope this report answers any questions that you may have regarding the water supply. If you have any further concerns, please contact Robert Tozeski @ (508) 841-8506. Our fax number is (508) 841-8497.



Drinking Water Sources

The Town's water supply comes entirely from a series of six (6) active gravel packed groundwater supply wells, located in the northwest quadrant of Town. The six wells are pumped to the Home Farm Water Treatment Plant facility for treatment before entering the distribution system. State and federal drinking water regulations require certain chemical treatments before groundwater enters the distribution system:

- Air stripping is performed on the waters from the Home Farm 6-1, Home Farm 6-1A satellite well and 6-2 wells to remove VOC'S (Volatile Organic Compounds). After treatment, levels have remained undetectable.
- Chlorine is added to disinfect the water to prevent waterborne diseases
- Potassium Hydroxide which adjusts the pH of the water and a phosphate based corrosion inhibitor is added to minimize lead and copper. Also, manganese is sequestered in the process to prevent problems in the distribution system
- Fluoride is added for tooth decay prevention

The three remaining wells South St.$ewall St. #5 and Oak St are presently not in use because their rated daily capacities have been transferred to the Home Farm Wells. This site has higher yield capacity and better pumping efficiency for the Town.

The Board of Selectmen often have water related issues on their agenda and we would encourage your attendance and participation in these meetings.

Substances Found in Tap Water

Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals, and in some cases, radioactive material. It can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

Microbial contaminants -such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants -such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides -which may come from a variety of sources such as agricultural, urban stormwater runoff, and residential uses.

Organic chemical contaminants -including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive contaminants -which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 800.426.4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and some infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on lowering the risk of infection by

Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 800.426.4791.

Important Definitions

Maximum Contaminant Level (MCL) – the highest level of a contaminant that is allowed in drinking water.

Maximum Contaminant Level Goal (MCLG) – the level of a contaminant in drinking water below which there is no known or expected risk to health.

Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.

Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

ND – Not Detected

PPM –Parts per million (equivalent to one drop in ten gallons)

PPB – Parts per billion (equivalent to one drop in 10,000 gallons)

Water Quality Testing Results

The tables below list all the drinking water substances that we detected during the 2005 calendar year. The presence of the substances does not necessarily indicate that the water poses a health risk. Not listed are the approximate 80 substances for which we tested for but did not detect. The Massachusetts Department of Environmental Protection reduced the monitoring requirement for Inorganic Compounds and Synthetic Organic Compounds to less than once per year because the source is not at risk of contamination.

Contaminant Microbial	Highest # Positive in a month (PWS collects < 40 samples per month)	Highest % positive in a month (PWS collects > 40 samples per month)	MCL	MCLG	Violation (Y/N)	Possible source of contamination
Total Coliform		**0**		**0**	**N**	
Fecal Coliform		**0**		**0**	**N**	

Contaminant	Highest detect value	Range detected	Average detect	MCL/ MRDL	MCLG/ MRDLG	Violation (Y/N)	Possible source of contamination
Total Trihalo-Methanes (ppb)	**2.1**	**ND –2.1**	**0.85**	**80**		**N**	**By – product of drinking water chlorination**
Nitrate (ppm)	**1.8**	**1.8**	**1.8**	**10**		**N**	**Erosion of natural deposits. Runoff from fertilizer use.**
Fluoride (ppm)	**1.2**	**0.7 – 1.2**	**1.0**	**10**	**10**	**N**	**Water addition that promotes strong teeth**
Tetrachloro-ethylene (ppb)	**3.5**	**ND-3.5**	**1.6**	**5.0**		**N**	**Leaching from vinyl lined asbestos concrete piping. (Sample taken on a dead end line toward the far end of the reduced high system)**

Water System Improvements

Water main replacement work was completed on Spruce St. from Crescent St. to Meadow Ln and the entire width of Boston Turnpike at the Lake St. intersection. The Town also began preliminary design work to replace two of the existing Masonic Water tanks with one larger prestressed concrete tank. One tank was constructed in 1914 and the other in 1953. Lastly, the Town met with the State to discuss terms for its Water Management Act permit. This permit governs the amount of drinking water that can be withdrawn on a daily and annual basis from the Blackstone river basin. At year's end, the permit was under appeal with the State.

The annual water quality report is available upon request at the Shrewsbury Water Department, 100 Maple Ave. Please contact us at (508) 841-8506 for more information regarding this matter.

Town of Shrewsbury Water & Sewer Dept.
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